PEOPLE FOR PUGET SOUND
pugetsound.org

June 1, 2004

Megan White, Director
Environmental Services Office
Washington State Dept of Transportation
AWV Project Office
999 Third Avenue, Suite 2424
Seattle, WA 98104

RE: SR 99: Alaskan Way Viaduct & Seawall Replacement Project, Draft Environmental Impact Statement

To Ms. White:

We have reviewed the *SR 99: Alaskan Way Viaduct & Seawall Replacement Project, Draft Environmental Impact Statement (DEIS),* dated March 2004. We applaud the tremendous amount of staff and contractor effort that has gone into producing the information and analysis, as well as the effort to make the DEIS a public-friendly document.

However, we believe that the DEIS is inadequate because the public and decision-makers are not able to evaluate a reasonable range of alternatives. The five alternatives in the main DEIS document are all variations of the same project and involve significant traffic and environmental and social impacts along Seattle's waterfront. The "no build" alternative was not presented in the main document but in an appendix – implying to the reader that this is not a real alternative. Beyond the concepts presented and the "no build" alternative, it is important that a reasonable range of alternatives be presented to the public for this project. In contrast to the alternatives presented, there are alternatives that will move people and goods through and to downtown, AND create a people and environment-friendly waterfront along the shoreline of Elliott Bay. Capacity improvements in underutilized areas of downtown, such as 1st and 4th streets could be further developed and included in a project that improves downtown, the waterfront and Elliott Bay in a creative and far-reaching way. Economic vitality, transportation solutions, environmental health, and a people-friendly waterfront must be placed on an equal tier.

Alternatives need to be developed that accommodate transportation AND create a great waterfront. We would like to see consideration of additional reasonable alternatives that achieve or approximate the purpose of the project at lower environmental costs. A "no build" alternative could involve removing the unsafe viaduct and developing a less expensive traffic access plan including the restriping of I-5, accommodation of traffic into the city on other arterials, such as reconfigured 1st, 4th and 6th and a major commitment to flexible transportation projects. A smaller tunnel could be accomplished

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on the waterfront (4 lanes total) with a lesser amount of concrete on the surface – no more than 4 total lanes and minimal pavement. Another option would be to create two bore tunnels that could avoid impacting the waterfront directly. Through traffic could go into the tunnels at the stadiums and emerge north of Mercer. Two bore tunnels would be significantly less expensive than one – which had been examined by the Viaduct Team earlier in the process but not presented to the public. These concepts should be incorporated into a range of alternatives that would have fewer adverse impacts to be avoided and mitigated, and would meet the transportation needs of the state and city in a win-win project.

In addition to our main objection to the lack of a full range of alternatives for the project, we have serious concerns about the following issues. These comments and other comments are further detailed in the attachment.

- Mitigation measures are not developed for most aspects of the project. We suspect this is because of the tight time frame of the planning process – requiring the DEIS to be published in the first quarter of 2004, for example. The public, therefore, is not given the opportunity to fully evaluate the merits of the alternatives and mitigation measures. Furthermore, additional public process will be needed for any proposed mitigation actions that are developed at a later date.

- No serious effort is presented in the DEIS to improve the health of Elliott Bay. In fact, the nearshore is discounted as being unimportant. It is not acceptable to state that because an area is already degraded then there is no need to restore the habitat and water quality. The nearshore, of which the waterfront is part, is vital, for example, to help bring back the health of juvenile salmon in Puget Sound. Further, the failure to recognize potential for habitat restoration is itself an adverse impact, as building the project without restoration could permanently preclude it.

- Long-term costs of the project, including environmental impacts, and non-direct construction costs – such as impacts to businesses in the waterfront are not included.

In conclusion, we do not believe that the project fulfills the purposes of the SEPA chapter which are: "(1) To declare a state policy which will encourage productive and enjoyable harmony between man and his environment; (2) to promote efforts which will prevent or eliminate damage to the environment and biosphere; (3) and stimulate the health and welfare of man; and (4) to enrich the understanding of the ecological systems and natural resources important to the state and nation."

If you have any questions, please feel free to call me or Heather Trim of my staff at (206) 382-7007.

Sincerely,

Kathy Fletcher
Executive Director

Attachment

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Specific Viaduct/Seawall DEIS Comments
People For Puget Sound

PEOPLE FOR PUGET SOUND'S VISION FOR THE WATERFRONT

People for Puget Sound is a citizens' organization whose mission is to protect and restore Puget Sound and the Northwest Straits. We focus on water quality and shoreline habitat, advocating that the State of Washington devote more resources to the prevention of further degradation of the Sound and to its recovery as a healthy ecosystem. The SR:99 Viaduct and Seawall Project has the potential to be a win-win undertaking that can help us further improve the condition of Elliott Bay and Puget Sound while creating solutions for transportation, the economy and a human-oriented waterfront.

Features of this win-win vision, that is good for the people and good for the Sound, include:

- Nearshore habitat, both constructed and natural, that allows for fish migration along the waterfront
- Quality nearshore habitat for non-migrating species, including birds
- Clean water entering Elliott Bay from Seattle
- Retention of access and capacity through, to and from downtown.
- Transportation solutions that promote less single occupancy driving at the waterfront
- Elimination of the safety risk of the viaduct and seawall
- Good access from the water for all sizes of boats, including kayaks and canoes
- Opportunities for humans to touch the water, such as beaches and low walkways
- Significant green and open space; continuous and interconnected greenway
- Excellent tourist and destination features
- Connections to the neighborhoods
- Reduction of acreage devoted to parking of vehicles, particularly overwater
- A knitting of the water with the land and the land with the water
- Pedestrian Precinct in Downtown, human health prioritized
- Bicycle paths
- Easy transit options and well interconnected transit hubs
- Spiritual places
- Places that honor the area's history
- Quality access for disabled persons
- Vibrant retail areas, cafes
- Facilities for families and residents
- Maritime and other well paid jobs; a thriving Port of Seattle
- Significant reduction of concrete on the waterfront and
- A waterfront that will improve our quality of life, make Seattle proud and attract economic investment in our state.

We can't solve tomorrow's problems with the transportation solutions of yesterday. If we are going to spend $3 to $4 billion, then we want a waterfront that is better than we have now.

DEIS DOES NOT INCLUDE A REASONABLE RANGE OF ALTERNATIVES

The DEIS does not present a reasonable range of alternatives. Some additional reasonable alternatives that achieve or approximate the purpose of the project at lower environmental cost might include:

A double bore tunnel. We understand (Bob Chandler, personal communication) that a single, large bore tunnel was initially considered for the project. We propose consideration of two smaller bore tunnels from the area of the stadiums to north of Mercer. Two bore tunnels would be significantly less expensive than one massive bore tunnel. Bore tunnels, although costly, would eliminate major costs associated with years of construction impacts, as well as negative environmental impacts, along the waterfront. The duration of construction, 7.5 to 11 years, as stated in the DEIS, does not include 18 months of utility relocation and site preparation, which would involve construction of access roads and staging areas, relocation of the #5 Fire Station, and relocation of utility and rail lines.

Reasons to avoid impacting the waterfront with 7.5-11 years (plus an additional 18 months) of disruption:

- The proposed alternatives require the purchase or displacement of 14-33 parcels for needed rights-of-way, including 8-20 structures, displacing 273-581 jobs.
- Noise, dirt, light and glare during construction which would impact 6,183 dwelling units (9,759 persons), including 1336 that are low income, special needs or emergency, that are located within one to two blocks of the construction area (Appendix I, Social Resources Technical Memorandum, page 9).
- Arrival and departure of construction trucks, lack of parking, difficult access, and utility disruptions for 1098 businesses within one block of site – 78.5% of which are small with less than 20 % employees (Appendix P, Economics Technical Memorandum).
- Disruption of rail and freight traffic
- Significant potential water and sediment quality problems during construction. Potential water quality problems outlined for the various alternatives in Appendix U (Hazardous Materials Discipline Report) include a) remobilization of existing soil and groundwater contamination by construction activities or by drawdown of groundwater, b) contamination issues related to dewatering activities, and c) direct impacts to Elliott Bay.

Smaller Tunnel, Moved to the East: Creating bore tunnels or moving the cut and cover tunnel to the east, in order to provide more room for habitat restoration, would eliminate the need for filling in Elliott Bay and allow for a more flexible seawall plan. Pocket beaches, cutouts of the seawall, creation of coves and bird islands, and more, could be created if the tunnel is moved east and separated from the seawall. A smaller tunnel could be accomplished on the waterfront (4 lanes total) with a lesser amount of concrete on the surface – no more than 4 total lanes and minimal pavement.

A Different approach to a "No Build" alternative: A "no build" alternative could involve removing the unsafe viaduct and developing a less expensive traffic access plan including the restriping of I-5, accommodation of traffic into the city on other arterials, such as 1st, 4th and 6th – which would involve some reconfigurations – and a major commitment to flexible

transportation projects. Capacity arguments in the DEIS support using the street grid and making improvements on I-5 and increasing transit. If the City can handle reduced capacity during construction phase, why can't it be handled permanently? Further, the system is constrained by capacity limits to the north and south (Appendix C), which supports the argument for a more encompassing traffic plan that involves multiple entry points into downtown. This "No Build" alternative would also avoid the costs and impacts listed above under *bore tunnels*.

SCOPE OF PROJECT NARROWED

The initial project, as described in 2001 Federal Notice, included a wider range of alternatives. This range was narrowed but the reasons were not fully explained in the DEIS. Some options were, as noted in the DEIS, considered too expensive but no details were provided. It is not clear that adding transit capacity or reconfiguration of the surface street system would not be cost-effective in the long-term.

Scope of project from 2001 Federal Notice of Intent: "The proposed action would provide a facility with improved earthquake resistance that maintains or improves mobility for people and goods along the existing SR 99 Corridor. The proposed action would involve improvements to the existing 2-mile viaduct structure or construction of a new facility. The southern terminus of the project would be the First Avenue South Bridge. The north terminus would be north of the existing Battery Street Tunnel and will be determined after project scoping to (1) not preclude a possible connection to the south Lake Union vicinity (the Mercer Street Corridor connection to Interstate 5), (2) not preclude a possible realignment of the SR 99 corridor, and (3) not preclude using the existing Battery Street Tunnel and existing Alaskan Way Viaduct facilities."

"Although alternatives have not yet been identified, preliminary alternatives under early consideration include: taking no action, seismic retrofit of the existing structure, in-kind replacement of the current structure, replacement with a new elevated structure of a different configuration, replacement with a tunnel, removal of the viaduct and reconfiguration of the surface street system, adding transit capacity, or combinations of these solutions."

Nickel-Funding Restriction: Under the 2004 Supplemental Transportation Appropriations (ESHB 2474: Sec 302 (15)), a proviso was added that limited the state funding to options that replace capacity through the waterfront corridor. The project, however, has also been funded by other entities, including the Seattle ($5 million), Puget Sound Regional Council ($1.2 million), the Corps of Engineers ($100,000), and the federal 2003 budget ($2 million) according to the WADOT web page, and those funds could be used to look at alternatives that use the entire downtown area.

Ideas brought out by the Leadership Team: The Viaduct/Seawall Team created a leadership team to help guide the project. People For Puget Sound strongly supports many of the ideas that are listed on the WADOT web page from this group. Some key concepts include:

- Take advantage of opportunity to add capacity through, about, and around downtown.
- Create multi- modal solutions – transit, single occupant vehicles, freight, bicycle-pedestrian facilities, ferries, light rail, etc.

- Create an open space along the waterfront, including public space, connections to downtown, and commerce.
- Create a beautiful waterfront and enhance the vitality of the area.
- Preserve relationships of the City with its waterfront.
- Bring the waterfront back into the City.

CONFLICT WITH CITY VISION FOR A GREAT WATERFRONT

The Mayor has publicly stated that he views the waterfront as the city's front porch and that he supports the city's waterfront planning process. The City Council has adopted visions/guidance statements conflict with the Viaduct/Seawall DEIS:

Seattle City Council Viaduct Resolution 30497 (July 15, 2002): City Council and the Mayor passed a joint resolution (#30497 *A Resolution relating to the Alaskan Way Viaduct and Seawall Project,* indicating the high priority of this Project and establishing initial guiding principles for the Project.) on July 15, 2002:

- High Priority Project. The Alaskan Way Viaduct and Seawall Project is one of the highest transportation priorities for the City of Seattle. The Project is necessary to address safety issues and maintain the corridor as a critical component of the local, state and regional transportation system.

- Section 2. Principles. The City intends to use the following principles to guide its actions on the Project, with the understanding that the Project will be further developed through review and analysis of options by the City and WSDOT:

  a. Address Safety Risks. To protect public safety, urgent action must be taken because both the Viaduct and Seawall face a significant risk of failure. Significant damage to either one would very likely result in injury and loss of life, property damage, economic loss, and disruption of the regional transportation system, so any proposed solution must provide for significant improvement or the replacement of both structures.

  b. Phasing. The City recognizes that the magnitude of the overall project will likely necessitate a phased approach for construction. If phased, each phase should have functional utility and should allow the corridor to be used during construction. The initial phase should focus on the areas that pose the greatest safety risk, primarily the central waterfront. But the initial phase must also produce a functional roadway that, to the extent possible, is integrated with the existing street network and begins to address long-term transportation solutions for the South Lake Union area. The City and WSDOT will coordinate construction phasing with other major construction and redevelopment projects.

  c. Funding. Funding for a project of this magnitude, which is a critical component in the City's transportation infrastructure, a key link in the region's freight mobility network and an essential element of the State's highway system, will require a broad partnership between the City, the Port of Seattle, the State, and

other regional representatives, as well as direct Federal support. The City is committed to working cooperatively to establish such partnerships and to support approaches that can jointly address the funding requirements of the project and other regional and state transportation needs.

d. Design. Overall design should address urban design issues unique to each neighborhood, minimize adverse impacts to neighborhoods and local businesses from construction activities, and minimize environmental impacts. Priorities for the three components of the Project are as follows (these are based on current information about the components and options being analyzed, and will be further developed based on ongoing analysis):

1. South. Design should provide improved connections to SR 519, the Spokane Street Viaduct and the stadium area, as well as allowing flexibility for future redevelopment along the waterfront adjacent to Pioneer Square and the stadium area.

2. Central. To the maximum extent practicable and feasible, design should include an underground tunnel and integrated seawall replacement along the central waterfront in order to reconnect downtown neighborhoods with the waterfront and to provide opportunities for open space amenities and an improved pedestrian environment.

3. North. To the maximum extent practicable and feasible, design should include an underground tunnel with a portal north of Roy Street, allowing the surface streets in the South Lake Union/Seattle Center area to be reconnected in order to improve access and mobility, and improved connections between SR 99 and I-5.

Seattle City Council Waterfront Resolution 30664 (April 26, 2004): The City Council adopted *A Resolution adopting Principles for Development of a Central Waterfront Plan* which included the following Framework Principles for Development of a Central Waterfront Plan:

- Balance and Integration.
- Access and Connection.
- Authenticity and Identity.
- Destination and Movement.
- Diversity and Flexibility.
- Economic Development
- Environmental Sustainability. *Develop the waterfront as a model of environmental sustainability through redevelopment and public improvements that enhance marine habitat and migration, improve water and air quality, and reduce noise. Pursue "salmon-friendly" practices and improvements to enhance migratory fish routes and feeding areas.*

We included the text for the Environmental Sustainability bullet to demonstrate the commitment of the City to habitat and water and air quality along the waterfront.

City/State Plans: The Viaduct/Seawall proposed alternatives are not consistent with most of the stated goals of city and state plans and policies which are listed in Appendix G (Land Use and Shorelines Technical Memorandum), such as the Shoreline Master Program, Belltown Neighborhood Plan, and the Commercial Core Neighborhood Plan. ***Specifically, People For Puget Sound disagrees with the DEIS conclusions that the project, as proposed, is in line with the Shoreline Master Program (Appendix G, pages 43-49). The project does not protect areas of the shoreline that are biologically fragile, provide for the optimum amount of public access, relocate transportation facilities that are functionally or aesthetically disruptive to the shoreline, or ensure that all future uses will preserve and protect environmental systems, including wild and aquatic life.***

MITIGATION

The DEIS generally addresses the topic of mitigation by providing "potential mitigation" measures or by stating that mitigation actions will be developed at a later date. There are few specific mitigation measures outlined in the DEIS and appendices. The description of mitigation as "potential" measures leaves no assurance that any mitigation is actually proposed or guaranteed. We understand that a tight deadline was imposed – that the DEIS was required to be published in the first quarter of 2004 - but there is no assured public process to review proposed mitigation measures before the project is finalized. Further, it is difficult to evaluate the proposal when mitigation is not included or is proposed in minimal terms.

As an example, in Appendix T (Geology and Soils Technical Memorandum, Chapters 8 and 9) minimal mitigation measures are described for some aspects of the project, but in other cases mitigation is described as requiring the use of proper design techniques ("Drainage features...should be properly designed…"), as actions that "should" be done ("The stockpiles should be covered with plastic to mitigate erosion due to surface water and rain.") or actions that "could" be done ("Geotextiles could be used to reinforce potential failure zones within the fill."). In sum, there is no clear comprehensive mitigation plan for each alternative that can be evaluated in a systematic fashion.

Further, no mitigation is proposed for mounding of groundwater in the Central Waterfront where groundwater is only 8-12 feet below ground surface: "Potential groundwater buildup of this magnitude would be within the existing groundwater fluctuations resulting from tides in Elliott Bay. Therefore, mitigation measures will not be necessary." (Appendix T, page 102). People For Puget Sound requests that this issue studied further. If groundwater will be re-routed, or mounded up, in the project area due to soil grouting, then will there be areas of preferential flow that will cause undermining of the surface in other areas?

COMPLETE LISTING OF COSTS

It is not clear that all costs have been included, especially long-term environmental costs. Specific concerns are:

- Did project costs include construction-related costs such as relocating businesses during construction, and operating employee shuttles?

- *How much funding is included for mitigation?:* The mitigation proposals are sketchy for most aspects of the proposal. Have these costs been included in the overall projected costs for the alternatives? For example, in Appendix B (Alternatives Description and Construction Methods Technical Memorandum, page 71) direct transit enhancements are described. The final sentence, however, states: "Specific options on how the funding would be used are not known at this time and could be identified during the development of the preferred alternative."
- If quality habitat is not provided with this project for the waterfront, will we have to rip it all out and start over again in 20 years? The City is committed to the restoration of salmon and this project should provide progress towards that goal.

REMOVAL OF PROJECTS TO REDUCE COST OF VIADUCT PROJECT

It appears that a number of aspects of the proposal were included in the earlier $11 billion price tag have now been separated out and are not included in the DEIS:

- *Elliott to Alaskan Way Underpass*: A huge issue for future congestion in the waterfront is the increasing number of trains traveling north at Broad Street. Initially, the Viaduct/Seawall Team addressed this problem by creating an underpass as part of the viaduct project. In the DEIS, however, this project is now described in Appendix B (Alternatives Description and Construction Methods Technical Memorandum, page 129) as a City of Seattle project and further, it is unclear if it will be built. Trains are expected to increase from the current 10 per day to 39 per day within the decade (Bruce Agnew, personal communication).
- *Mercer Mess:* Does this project include funds for all of the fixes proposed for the Mercer Mess and other problems north of downtown?
- *Transit Opportunities:* How much funding does this project dedicate towards alternative transportation and transit? The WADOT web page states: "project does not expand capacity for future growth so that growth will need to be accommodated in modes other than single occupant cars. All of the alternatives include a range of flexible transportation programs that will ensure that people and freight continue to move through the corridor far into the future….Currently, 45% of commute trips to downtown Seattle are transit trips. Provisions to ensure that transit can continue to access downtown Seattle from the SR 99 corridor are being considered in each alternative. Measures such as transit priority treatments at traffic signals and provision of temporary transit lanes may be implemented during construction. Some of these measures may be continued permanently, if necessary, to maintain transit mobility. The lead agencies will continue to work closely with local transit agencies to identify the best mix of strategies to give transit vehicles priority on congested roadways where they are most effective." Will funding for these measures be included in the Viaduct/Seawall project?

TRANSPORTATION ASSESSMENT INCOMPLETE

Transportation information is vital to the evaluation of this proposed project. Additional information would assist the public to better review the alternatives.

In Appendix C (Transportation Discipline Report), reference is made to *Task 1 Report* (December 1996) but it is not clear that "insights on travel characteristics of trips made on the Alaskan Way Viaduct" are provided in the DEIS or Appendix C. Specific evidence is lacking for the statement on page 53 of the Appendix that 38% of vehicles that use Viaduct on a daily basis have one trip-end in downtown Seattle

Additional questions that remain unanswered in the DEIS include:

- Where are the commuters coming from and going to within downtown?
- What trucks use the viaduct, where do they come from, where do they go, and what time of day do they travel?
- What trucks use Alaskan Way, where do they come from, where do they go, and what time of day do they travel?
- How many trips on the Viaduct are to and from the airport?
- How many trips on the Viaduct are optional (i.e., if the viaduct was closed, the trips would not occur)
- Where are ferry autos (in-vehicle boarding) headed once they exit Colman Dock?
- What is projected rail traffic at Broad Street?
- What evidence is there that the entire 110,000 vehicle load would transfer to I-5 as stated on page 38 of the DEIS?

Ferry location and traffic: The congestion caused in downtown during ferry off-loading periods will become much worse if the Colman expands from 650 to 1100 vehicle capacity. An old Washington State Ferry traffic report (1999 WSF Travel Survey Analysis and Results Report) shows that 51% of the walk-on traffic (weekday pm peak period) from the Bainbridge Ferry goes to the Seattle Central Business District but the destinations for the auto traffic is much more diffuse:

Destination	
Seattle Central Business District	12.7%
Seattle Industrial Area	2.8
South Seattle/West Seattle	7.8
Sea Tac	8.9
Capitol Hill/University District	16.8
Queen Anne/Lake Union/Magnolia	10.0
Ballard/Green Lake/North Seattle, etc	7.6
Bothell/Redmond/ N Bellevue and CBD	5.8
Other Bellevue/Mercer Island	13.3
SW and West King Co/ Renton/Kent	6.7
All other places	7.9

Unfortunately, peak AM data was not included in the study. People For Puget Sound advocates relocating the auto ferry to the south for better connections to I-90, I-5 and SeaTac and retaining and increasing passenger-only ferries into downtown. New technologies and the use of private carriers may be warranted.

Traffic will move onto arterials or will shift to transit in the future: As described in Appendix C, traffic demand models forecast that transit mode will shift from 23 to 45% by 2030. If this shift

does not occur, then the Viaduct Team's model shows that vehicle traffic on arterials in downtown will increase 27-29% and on the viaduct only by 6-7% (Appendix C, page 14). The capacity constraints on the viaduct are due to capacity constraints outside of the corridor and constraints on roadways that feed traffic to SR 99. This appears to support an argument for directing capacity to the side arterials.

How many commuters are there in the proposed rebuild segment? Looking at the DEIS and Appendix C, it appears that the total number of commuters to downtown is relatively limited, in part due to constraints on the current system. For example, southbound commuters using the Interbay area may not go onto the viaduct to downtown because of the lack of easy downtown exits. Other potential commuters may use alternative routes due to the large number of stoplights and significant congestion on SR99 north and south of downtown.

In an attempt to get a picture of the daily commuters to downtown on the Viaduct, one can use the pm peak hour vehicle numbers provided on Appendix C Exhibit 4-9:

> 2600 Commuters/Travelers come into the Viaduct southbound through Battery Street Tunnel:
> 300 exit at Western, 700 exit at 1st Street
> 1250 enter at Elliott, 1300 enter at Columbia
> 4100 continue on towards West Seattle Bridge where 1750 exit and 2450 continue south
> This appears to represent approximately 1000 commuters from the north to downtown, 2550 commuters from downtown to the south and approximately 1600 travelers from north of downtown traveling through to the south.
>
> Northbound, using peak pm hours:
> 3300 travelers come from the south (Spokane entrance and points south)
> 1200 enter at 1st Ave, 500 enter at Western
> 650 exit at Seneca, 1250 exit at Western
> 3050 continue through Battery Street tunnel
> This appears to represent approximately 1900 commuters from south of downtown to downtown or Interbay, 1700 drivers from downtown commuting to the north and approximately 1400 travelers from south of downtown traveling through to the north

Even if you multiply this by 3 (to represent 3 rush hours), these are not huge numbers of drivers. AM peak traffic numbers were not provided but likely a reverse pattern is observed. This contrasts with the daily travel patterns reported in Appendix C (page 59) in which higher percentages overall are through-trips: 45% entering to and from the south are through-trips and 60% of vehicles entering to and from the south are through-trips. Overall, a clearer picture is needed of who uses the viaduct and where they are going.

Trucks: Appendix C notes that truck traffic (page 91-95) is as high as 5200 trips per day, mostly during non-commute times, and consists of more than 50% medium trucks, primarily concrete and delivery trucks. Tankers make up about 2% of the truck traffic. The Port of Seattle, in a letter dated August 27, 2001, (Appendix A, Agency and Public Coordination) clearly states that their freight transportation needs are well served by connections to the south and that it is

important that the existing infrastructure to the south is maintained and that a regional view to freight transportation is needed. Reliable and fast freight traffic is vital to our region's economy but clarity is needed on how much impact this project will have on businesses.

Flexible Transportation Program: People For Puget Sound advocates that this aspect of the project be enhanced. It is unclear how much the Viaduct/Seawall project will pay of the total cost of the Flexible Transportation Program. FlexPass programs (Appendix C, page 68), for example, include a cost to the company or to the employee. Also, no clear plan is presented to remove traffic volume off the viaduct and onto mass transit.

HABITAT

Habitat along the nearshore of Elliott Bay is high priority for People For Puget Sound. The nearshore habitat has been recognized as a critical element of the life cycle of salmon, especially for juvenile salmon.

Specific habitat-related concerns include:

- The main text of the DEIS (page 33) does not mention the value of the shoreline habitat prior to urban development of the area and does not include the environment as an aspect of the proposal that is considered controversial (page 27). People For Puget Sound believes that environmental aspects, especially habitat, are high priority and are not being adequately enhanced by this project.
- Appendix R (Fisheries, Wildlife and Habitat Discipline Report) notes that the water's edge is "the transition zone between the natural habitat of Elliott Bay and the highly urbanized habitat of Seattle." The new waterfront is an excellent opportunity to change this edge to a more transitional edge that will benefit both sides. The DEIS acknowledges that the Seattle waterfront is a migration corridor and rearing area for two endangered species, the Puget Sound Chinook salmon and the bull trout, which have both been observed. The report states oddly that "Chinook salmon spawn in the Duwamish River upstream from River Mile (RM) 11, which is many miles from the project area. Duwamish River Chinook Salmon are part of the Green River fall Chinook salmon stock. This stock is currently listed as healthy based on escapement levels. Young Chinook from other river systems have been collected along Elliott Bay shorelines." These statements minimize the importance of the Puget Sound nearshore habitat, which has been recognized as key habitat in the life cycle of salmon. Further, the Green River/Duwamish salmon population is projected to go into quasi-extinction levels (QEL) within 40-50 years if major changes are not made in the river and estuary (including the Elliott Bay nearshore) due to seriously declining trend of breeding stock.
- Description of fish and other species, including recent actual counts along the waterfront, are limited. For example, on page 48, the DEIS does not mention that salmon from Long Fellow Creek that enters Elliott Bay, as well as the recent recognition that salmon from other areas of Puget Sound use the waterfront as part of their migration corridor.
- On page 49 of the DEIS, the project is listed as 0.01 % of the overall watershed. This is misleading. The waterfront is a large percentage of the 13-mile long Elliott Bay shoreline (nearshore) and thus is significant.
- The DEIS proposes that urban vegetation be planted in the waterfront corridor. People For Puget Sound requests that native vegetation be incorporated.

- Appendix M (Archeological Resources and Traditional Cultural Places Technical Memorandum) indicates that the several of the tribes require protection of water and fisheries resources and habitat. We support their point of view.
- The DEIS proposes that a new 33,000 square feet pier be built near Pier 48 to be used as a staging area in addition to proposed intertidal land being used for the tunnel alternatives. People For Puget Sound opposes any new pier construction in Elliott Bay as it shades the water and eliminates habitat. If WA State Ferries proposes building a pier for their expansion plan, that should be covered under a separate public review process. As noted in Appendix R (page 22), juvenile salmon were willing to pass under a detached section of pier but "showed a great reluctance to pass into the dark area beneath the wood pile-supported apron." Finally, moving the tunnel alignment to the east would provide more opportunities for habitat improvements as well as eliminate the need to remove habitat from Elliott Bay.
- Appendix R (page 2) does not mention that construction will start in 2005 for fish passage around Howard Hanson Dam and will be completed by 2007 – which will significantly increase spawning and rearing habitat for salmon and bull trout and thus will, we hope, increase the need for more nearshore habitat in the estuary, including Elliott Bay. Bull trout are targeted for recovery in Green/Duwamish and thus should be considered high priority for the waterfront as well.
- Appendix R (page 2) states "The purpose of the proposed alternatives is to restore reliable transportation along the Alaskan Way Viaduct route and the structural integrity of the seawall to maintain its long-term structural support of the Alaskan Way Viaduct, Alaskan Way, and waterfront buildings." The alternatives clearly do not consider habitat as a priority.
- The proposed seawall will include additional "modified habitat" to be added to Elliott Bay but the project as a whole results in significant loss of habitat in Elliott Bay. Just adding riprap (Appendix R, page 41) as proposed is not adequate for habitat for the nearshore. The quality of this habitat needs to be further studied.
- Will the public be given the opportunity to review the Biological Assessment and the Essential Fish Habitat analysis that is planned as part of the next phase of assessment (Appendix R, page 36)?
- The DEIS proposes the new seawall to support the new viaduct structure and thus has not considered options for the seawall to support the waterfront alone under alternative options that were not considered (Appendix R (page 3)). We request that the construction of the seawall be studied as a stand-alone entity as part of new alternatives.
- According to Appendix R (page 9), permit conditions for ESA listed species will include "gradual intertidal slopes, to the degree possible, fine grain substrate (mixtures of sand-gravel-cobble) and absence of shading on the restored habitat." These are limited ideas and do not consider many other possibilities for providing habitat such as rocky intertidal, constructed bird islands, kelp beds, etc.
- In spite of the current unfavorable habitat along the waterfront, juvenile salmon have been documented on the waterfront by Port of Seattle studies (Appendix R, page 23). The DEIS makes a great case as to the loss of habitat in the Duwamish estuary but does not provide a plan to help reverse that loss.
- *Seawall improvement:* A critical aspect of the project that impacts Nearshore Habitat is the proposed new seawall. In areas where there is Pile-Supported Gravity Seawall,

Appendix B (Alternatives Description and Construction Methods Technical Memorandum, page 82) states "top portions of the unreinforced concrete gravity wall will be removed and replaced with sloping riprap material to create additional water surface area." In these areas, if the substrate is sound enough to hold riprap, then instead shallow habitat could possibly be constructed. People For Puget Sound requests that as much new habitat as possible be constructed along the seawall. In other areas, a precast concrete fascia panel is proposed to be attached to the seaward side of the newly constructed Type A seawall. This facia panel, as it is just an attachment, could be an innovative treatment with slopes, terraces and other features to create shallow water habitat (4 inches as the tide rises and falls). People For Puget Sound requests that innovative ideas be developed, and perhaps a pilot study completed, to look at ways to create artificial habitat attached to or part of the new seawall.

- Seawall concern: In Appendix U (Hazardous Materials Discipline Report, says that in Type B Seawall, the relieving platform holds up the seawall face, so it is unclear how a new wall could be built on the east side of this without a collapse of the existing wall face leading to serious water quality concerns.

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What People For Puget Sound strongly recommends for habitat improvements along the waterfront includes:

- Use of native, including overhanging vegetation along the water's edge to provide insects, leaf debris, woody debris for migrating fish as well as other wildlife.
- Elimination or reduction of overwater coverage of shallow nearshore zones.
- Elimination of overwater parking and associated water quality problems.
- Inclusion of shallow water habitat such as beaches. Pocket and perched beaches, similar to those in Alki, would be appropriate along the waterfront. In Vancouver BC, there are cutouts in the seawall that allow water to flow into perched beaches.
- Inclusion of intertidal rocky habitat, bird islands, and other types of habitat is desirable.
- Innovative treatments along the seawall to create artificial habitat
- Creation of kelp forests and other deeper water habitat
- Clean water and sediment to support quality habitat

WATER AND SEDIMENT QUALITY

Protection of and improvement of water and sediment quality along the waterfront is critical to Elliott Bay. Specific concerns are:

- *Lack of inclusion of all impaired waters:* Appendix S (Water Resources Discipline Report) considered the 1998 303(d) list for water and did not include consideration of the draft 2002/2004 list that will be adopted prior to the Final EIS. In addition, the sediment listings are not clearly included in the DEIS even though many of the sediment problems in Puget Sound waters are due to sources related to stormwater and combined sewers.
- *Groundwater Flow:* Appendix T (Geology and Soils Technical Memorandum) notes that areas along the seawall will be filled with grout. Where will groundwater flow be redirected?
- *Problems with soil grouting*: Grouting might result in gaps and irregularities in soil area (especially as obstructions are encountered (Appendix T, page 111)), might flow into

Elliott Bay, and could cause additional loads on seawall, leading to failures. How will this be prevented?

- *Stormwater concerns:* The chemicals of concern outlined in Appendix S are zinc, lead, copper, PAHs, and TSS. Phthalates should have been included on this list as they are a problem in Elliott Bay, as noted in the Appendix. Recent work by the City of Seattle has shown that traffic and roadways are an important source of this emerging contaminant of concern.
- *PAHs:* More work is needed to show that the project will be able to mitigate for PAHs – a contaminant of concern. Appendix S states "The removal rates for PAHs is not available at this time."
- *Best Management Practices:* No specific stormwater treatment Best Management Practices are listed in the document and so the public has no way to access if these Best Management Practices are appropriate for this site and the level of their potential effectiveness.
- *Construction staging:* Planned staging areas, where spills, soil stockpiles and more will occur, will be over the water according to the DEIS. People For Puget Sound strongly opposes using an overwater location for staging.
- *Impacts on Duwamish River:* The DEIS includes a plan to accelerate the construction of Royal Brougham Treatment Plant. If this project is not funded by Viaduct/Seawall funding, then King County might fund this project sooner and thus postpone construction of the important Hanford Combined Sewer Project that will allow for continued water quality problems in the Duwamish River (page 101 of Appendix S). People For Puget Sound opposes any projects that will delay cleanup of the Duwamish River.
- *Sediment Quality:* People For Puget Sound believes that cleanup of contaminated sediment in Elliott Bay, particularly along the waterfront, should be a priority. This area is a fish migration corridor for endangered species and is habitat for a number of other species. Any site proposed for inclusion in this project located within Elliott Bay must include a cleanup of the site-specific sediments.
- *Stormwater Management*: It is unclear that the combined sewer system will be able to handle 38 million gallons more stormwater gallons per year. The statement in Appendix S that "the proposed project will treat stormwater, either approach will reduce the total amount of pollutant load from the project area relative to existing conditions" does not take into consideration the potential negative impact of combined sewer overflows that occur because of an extra load on the system. For flows south of Columbia Street, Appendix S states that the Royal Brougham Treatment Plant will be constructed "earlier than planned and enlarged by 11 percent" to handle this flow. It is currently not planned for construction until 2030." The DEIS does not provide the guarantee that it will be constructed, the proposed date, and the funding. People For Puget Sound strongly supports treating contaminants at the source - not continuing to increase loads into the Combined Sewer System, which involves significant capital expenditures. North of Columbia, a higher volume of stormwater flow will be directed to existing Combined Sewer systems with no upgrade proposed. As stated in Appendix S, Best Management Practices have removal efficiencies of 58-65 % for copper and zinc. This does not constitute adequate treatment. Overall, we do not see innovative or far-reaching proposals for management of stormwater in the DEIS.

HUMAN HEALTH AND ENVIRONMENTAL JUSTICE
Human health and environmental justice must be addressed in the new waterfront:

Environmental Justice Appendix: Federal Law and US Department of Transportation requires that environmental justice principles be incorporated into this project. According to Appendix J (Environmental Justice Technical Memorandum), 25% of the population in the project area is below the poverty line and 49% have no vehicle available to the occupants of the dwelling. With statistics of that nature, it is clear that the proposed alternatives will create a significant disproportionate negative impact on the local population compared to the benefit of more distant residents and commuters. Local residents will be impacted by the noise of pile driving and other construction impacts as well as long-term air quality and other negative health impacts. In this appendix, noise not listed as a major impact during construction. Recent sheet piling installation at the Port of Seattle's Terminal 90-91 had a huge negative impact on the surrounding neighborhoods and similar impacts would be expected from the viaduct project, especially if work will be on a 7-day, 24-hour basis. Were the organizations interviewed not informed of the significant noise, dust and other construction impacts that will occur? In Appendix J, only *perceived* impacts were listed, whereas in Appendix I (Social Resources Technical Memorandum) *actual* impacts, such as noise levels were described. In the final EIS, these two appendices should be combined so that more on-the-ground impacts can be included in the Environmental Justice analysis.

Environmental Justice and Seattle Highways: Graduate student, Gail Sandlin at the University of Washington is researching land use patterns within the context of environmental justice with a particular interest in populations that reside within proximity to limited access freeways. Freeways with heavy traffic act as pollutant line sources and there is a growing body of epidemiological evidence that suggests that populations at risk to exposure to mobile source pollutants tend to be low-income and minority populations. A preliminary examination of the U.S. Census Bureau demographic block group level data indicates that there is a high distribution of low-income and minority populations that reside within the epidemiological surrogate exposure distance of 100 to 400 meters from the Alaskan Viaduct. This finding suggests that a more thorough environmental justice assessment may be warranted.

Human Aspect of Waterfront: A high quality pedestrian environment is needed for a vibrant, safe, and thriving waterfront. The waterfront is the 2nd most visited attraction in Seattle (approximately 4.2 million visits in 1999) (Appendix D, Visual Quality Technical Memorandum, page 53) and the potential for an excellent connection between Pike Place Market and the waterfront near the existing Aquarium Building could create the core of a vital new waterfront.

A new study that shows that people who live in areas where they have to rely on their car tend to weigh significantly more than people in areas with easy access to stores. (The Seattle Times, May 31, 2004, Study Links sprawling suburbs, sprawling waistlines). We need to get people out of their cars and walking.

Deficiency in Parks: In downtown Seattle, there is a deficiency in parks and in green space, particularly in Bell Town, Pioneer Square and the Commercial Core. As noted in Appendix H (Parks and Recreation Technical Memorandum), "estimated growth in population and employment will result in a 26-acre deficiency in parks in downtown" by 2014. The mayor wants to double the population of downtown from 33,000 to 66,000 people in the next twenty years. That increased population will need green space for refuge from urban life, playgrounds and other facilities for children, a reduction in the urban heat island effect, as well as increased alternative stormwater treatment in order to protect the health of Elliott Bay.

Noise: Noise from the above ground alternatives is a major negative impact on humans at the waterfront. Appendix F (Noise and Vibration Discipline Report) projects that peak traffic noise at the Seattle Aquarium in 2030 for the surface, rebuild, and aerial alternatives would be 74-75 dBA at Colman Dock, 70-71 at Waterfront Park and 73-73 at Seattle Aquarium. Exhibit 2-4 shows that 70 dBA is the sound level of highway traffic at 50 feet (equivalent to a Lawn mower at 50 feet) and 75 dBA is the sound level of a train at 50 feet (equivalent to a blender at 3 feet). Currently, it is extremely difficult to hear others speak at the waterfront when in the vicinity of the viaduct (for example, Mayor Greg Nickel's speech at the waterfront in the summer of 2003 – we could barely hear him and he was speaking into a microphone). Tests of noise levels with the viaduct open and closed (exhibit 3-1) show that the noise at the waterfront is at least 10 dBA lower when the viaduct is closed:

Location of test	Decrease in noise level when Viaduct closed
Sidewalk east of Viaduct between Seneca and Spring:	17 dBA
Seneca Street between Western Ave and Viaduct:	12 dBA
Waterfront Park boardwalk:	12-13 dBA
Waterfront Park sidewalk:	6 dBA
Harbor Steps:	6 dBA
Waterfront Landing Condos:	13 dBA
Victor Steinbrueck Park:	19 dBA

To the human ear a 10 dBA decrease is as if the noise has been halved (Appendix F, page 5).

During construction, one can expect constant (24 hours, 7 days a week) noises that will include extreme noises such as 95-99 dBA (driven piles at 50 feet) and 115 dBA (driven sheet pile at 50 feet).

People For Puget Sound strongly recommends that the solution for the waterfront eliminate the noise of the viaduct and that construction noise be carefully mitigated.

Air Quality: Appendix Q (Air Quality Discipline Report) calculates predicted 2030 1-hour average intersection CO concentrations for intersections but does not present similar calculation for portal exits or ventilation stacks (only 8 hour average, page 53) and does not clearly state the comparison in the Appendix (exhibit 6-5 shows emission rates). Why was the peak hour data not presented? Appendix Q states that the lowest height (page 47) for the ventilation stacks - that would not result in exceedence of air quality standards - is 12 feet above the 30 feet high ventilation buildings. Does this mean that standards would be exceeded at a lower elevation?

What is the total pollutant load for the area? More information is needed for the public to assess the impacts of air pollutants from the proposed portals and the vents.

SUSTAINABLE ASPECTS OF THE PROJECT NEED TO BE STRENGHTENED

The City of Seattle strongly supports sustainable principles to guide its future growth. Many aspects of this proposed project could be strengthened to help conserve resources and support sustainable practices:

Energy Consumption: Appendix V (Energy Technical Memorandum) does not explore sustainable methods for energy conservation for the project. For example, the DEIS assumes the use of supply and jet fans for ventilation for tunnel alternatives. No mention is made of designing the overall project to take advantage of natural airflow in the area or configuring the tunnel and intake or out-take locations to maximize the natural attributes of air flow at the site. Careful planning and study, similar to that being done for the Freedom Tower in New York City, by Guy Battle, could reduce energy costs and could also minimize air pollution from vent stacks to downtown. People For Puget Sound advocates the use of bigger picture, sustainable planning for the entire project to increase conservation, improve efficiencies, and minimize or eliminate human and wildlife impacts.

Air Pollution: The DEIS does not state that low sulfur or biodiesel fuels must be used during construction.

Big Picture Transportation Solution: Appendix V indicates that the vehicle miles traveled in Puget Sound region increased nearly three times faster (71%) than population (15%) and employment (34%) from 1981 to 1989, due in part to rise of two-worker families, and has grown at a rate (26%) more similar to the rise in population (19%) and jobs (27%) during the 1990's. People For Puget Sound would make the argument that the rise in vehicle miles traveled is due to urban sprawl. The project alternatives, including the surface option, allow for increasing capacity in the downtown corridor. A significant big-picture effort is not made to completely revamp how commuters get to downtown, especially from distant suburbs.

According to a recent article in *The Stranger*, in a study of "transportation costs in 28 metropolitan areas, Seattle households spend more on transportation (17.1 percent of the family budget) than on food, utilities, or healthcare, more in fact than on any other line item except housing." The City of Seattle and the State can take steps now to address this problem.

A Waterfront For The Future: People For Puget Sound requests that restoration of the waterfront become a priority for the project. We cannot afford to pass our degraded waterfront along to the next generation.